ABSTRACT OF THE DISCLOSURE

A method and apparatus for numerically analyzing a growth degree of grains grown on a surface of a semiconductor wafer, in which the growth degree of grains is automatically calculated and numerated through a computer by using an image file of the surface of the semiconductor wafer scanned by an SEM. A predetermined portion of a surface of the wafer is scanned using the SEM, and the scanned SEM image is simultaneously stored into a database. An automatic numerical program applies meshes to an analysis screen frame and selects an analysis area on a measured image. Thereafter, a smoothing process for reducing an influence of noise is performed on respective pixels designated by the meshes using an average value of image data of adjacent pixels. A standardization process is then performed, based on respective images in order to remove a brightness difference between the measured images. After comparing standardized image data values of the respective pixels with a predetermined threshold value, the number of pixels whose standardized image data value is greater than the threshold value is counted. The growth degree of grains on the surface of the wafer is calculated by numerating a ratio of the counted number with respect to a total number of the pixels contained within the analysis target image.